

CLAIM LISTING

1. (canceled) A "3-in-1 Anti-Noise Radio Sound-Collect Device is a headphone structure which connected by a Sleeve, Headband, Headband Leading Cable and Headset Elastic. The headphone structure of the two sides comprising an Earcover and a Speaker Plate; a Speaker and a PCB are installed between them. The circuit of the PCB is consist of three kinds of circuit system wherein.

Said Anti-Noise Circuit System comprise:

A microphone, after received the external noise a phase detection u-circuit is used to process the noise signal, a speaker, after emitted a sound wave which opposite the phase of noise, the noise can be eliminated,

Said Radio Circuit System comprise:

A FM AM receiver, after received a radio broadcast signal a u-circuit IC, a down-convert circuit, a detect circuit and a demodulate circuit are used to process the signal, a phase detect u-circuit IC and a speaker are used to output the signal.

Said Sound-Collect Circuit System comprise;

A external audio source input terminal, after received the external input audio signal a phase detect u-circuit IC and a speaker are used to output the signal.

The main characteristics of this invention are:

combining the Anti-Noise Circuit System, Radio Circuit System and Sound-Collected Circuit System into a 3-in-1 synthetic Circuit System so that the user can listen to the radio broadcast or external input audio signal while in the noise environment.

In Anti-Noise Circuit System, the microphone that receives the external noise is connected directly to the headphone structure. Due to the Headband Leading Cable is hidden in the headband, the disadvantage of hindering some objects caused by the cable can be eliminated.

2. (new) A wireless 3-in-1 anti-noise, radio, and sound-collecting device comprising:

- a headphone structure having right and left ear cover speakers, a head band interconnecting said speakers, and a PCB installed in said headphone structure; said PCB having first, second and third circuit systems therein;

- said first circuit system being an anti-noise circuit comprising a microphone for detecting noise, phase detection U-circuits coupled to said microphone and to each speaker and means for emitting a sound wave of opposite phase to said noise, coupled to said speakers;

- said second circuit system being a radio circuit system comprising an am/fm receiver, a U-circuit IC, a down converter circuit, a detect circuit, and a demodulator circuit;

- said third circuit system comprising an external source audio input terminal, said second circuit system demodulator circuit and said third circuit system audio input terminal being coupled to said phase detecting U-circuits and to said speakers.

IN THE CLAIMS

1. (Canceled)

Rewrite claim 2 as follows:

--2. (Currently Amended) A wireless 3-in-1 anti-noise, radio, and sound-collecting device comprising:

a headphone structure having right and left ear cover speakers, a head band interconnecting said speakers, and a PCB installed in said headphone structure; said PCB having first, second and third circuit systems therein;

said first circuit system being an anti-noise circuit comprising a microphone for detecting noise, phase detection U-circuits coupled to said microphone and to each speaker and means for emitting a ~~second~~ sound wave of opposite phase to said noise, coupled to said speakers;

said second circuit system being a radio circuit system comprising an am/fm receiver, a U-circuit IC, a down converter circuit, a detect circuit, and a demodulator circuit;

said third circuit system comprising an external source audio input terminal, said second circuit system demodulator circuit and said third circuit system audio input terminal being coupled to said phase detecting U-circuits and to said speakers.--.